"Low coral cliffs, which in many places form the shoreline, give indications of recent elevation, being marked by two distinct lines of erosion. On the beach, on the eastern side of the island, I observed that the sea had washed up recently high above the ordinary high-water mark; trunks of cocoa-nuts were lying about rotting, and the lower part of the stems of those still standing near the shore had been washed by salt water. This was afterwards explained by the fact that a very high tide occurred on March 18 (about the time of the hurricane at Samoa), which rose 2 feet above high-water mark, and remained so for fifteen minutes. A narrow fringing reef generally borders the island. On the eastern side of the island, below the summit, at an elevation of 300 feet, volcanic stones were observed lying in the bed of a stream, and on the beach, a little further south, are dykes of volcanic rock; one of diorite shows through the beach, another, which is close-to, is about 100 feet high, and can be traced a short distance inland. The inner part has *coral-reef rock, conformable, superimposed.* The beach for a considerable distance either side is strewn with blocks of conglomerate formed of coral and volcanic rocks cemented together.

"The higher part of the lower terrace on the western side of the island was found to be composed of coral-reef rock.

"The present volcanic nucleus must have been originally below the surface, but sufficiently near to allow coral to grow, and reef-making Foraminifera to be deposited on its summit. It was then evidently elevated about 300 feet (marked *aa'*, *bb'* in section) in a comparatively short interval, after which a long period of rest, or subsidence, followed, during which coral grew (forming the portion *bb'* to *cc'*), and a lagoon (*d*) was produced. Then another period of elevation raised the island to its present height, and exposed the volcanic foundation.

"C. F. OLDHAM."

I am indebted to Captain Wharton for sending me the specimens collected by Commander Oldham. The limestones, some of which are fairly crystalline in character, are composed of Foraminifera and water-worn fragments of calcareous Algæ ("Nullipores"). The deposit of hydrated manganese oxide cropping out from below the limestone is remarkable, but it has all the appearance of an ordinary terrestrial deposit. A much-weathered mass from the neighbourhood contains many beautiful crystals of magnetite. Although the rocks forming the nucleus of the island are of igneous origin, they are not modern volcanic materials. They consist of much altered glassy andesites (porphyrites) with epidiorites; and are suggestive of ancient volcanic masses that have been exposed at the surface by denudation. The significance of such facts as these has been pointed out by Prof. Bonney and Dr. Blanford; and it is quite incorrect to quote examples like this as lending support to the view that all oceanic islands are of volcanic origin. JOHN W. JUDD.

NOTES.

IN the list of Birthday honours the merits of many different classes of public servants are duly recognized. The services of men of science in the Science and Art Department, however, following an unbroken rule, fail to receive any acknowledgment.

AMONG those who have received the honour of C.B., we are glad to see the name of Prof. W. C. Roberts-Austen, F.R.S., Assayer to the Royal Mint.

THE date of the second *soirée* of the Royal Society, to which ladies are invited, is fixed for June 18.

THE Jubilee of the Uniform Penny Post was well and worthily celebrated at the Guildhall on Friday last, the 16th inst., by the Corporation of the City of London. The grand old hall was never applied to a better purpose. Every process connected with Post Office work, from telegraphy to sorting, was shown in actual operation. The Exhibition remained open for three days, and 25,000 people were delighted.

ON May 15 an influential deputation from the Marine Biological Association of the United Kingdom waited upon the Chancellor of the Exchequer to ask for an additional grant from the Treasury in aid of investigations in connection with food-fishes, crustacea, and mollusks, carried on by the Association. Mr. Joseph Chamberlain, M.P., introduced the deputation. Both he and Sir E. Birkbeck, M.P., called Mr. Goschen's attention to the large amount spent by the United States in the encouragement of the fishing industry; and Sir E. Birkbeck pointed out that even Scotland, with her grants to the Scotch Fishery Board, is in this respect ahead of England. After some remarks from other members of the deputation, the Chancellor of the Exchequer, in reply, said that the questions which had been put by him in the course of the speeches were not made from a critical or carping point of view, but merely to convince himself as to what were really the aims of the Association, which he regarded as excellent; but he could not say anything as to the practicability of their being carried out. He pointed out that the Treasury would very carefully consider the whole question of how to recast the Fisheries Department, but he felt that it would be an inconvenient thing to have four bodies, two in England and one each in Scotland and Ireland, whose jurisdiction might overlap. He hoped to be able in a short time to have an opportunity of consulting some of the scientific and other gentlemen present, in order to have further light thrown upon the subject before the Government took any action in the matter.

AT the Royal Institution, on Tuesday afternoon, May 27, Mr. Andrew Lang will begin a course of three lectures on "The Natural History of Society." The remaining lectures will be given on June 3 and 10.

MR. G. BERTIN is about to deliver, at the British Museum, a series of four lectures on the manners and customs of the Babylonians, from the cuneiform documents in the Museum. The lectures will be given on the following Tuesdays—June 3, 10, 17, and 24, at 3.30 p.m.

ON Monday evening Mr. T. W. Russell asked in the House of Commons whether the Committee consisting of certain members of the Royal Society appointed to inquire into the question of lighthouse illuminants had yet reported. Sir M. Hicks-Beach replied that there had been some unavoidable delay in the matter in consequence of a change made in the composition of the Committee. But he had communicated with the President of the Royal Society, and understood that the Report of the Committee might be expected in the course of the summer.

MR. F. H. SNOW, of Lawrence, Kansas, calls attention in *Science* to a remarkable fall of meteorites of unknown date in Kiowa County, Kansas. "Many of the citizens of Greensburgh, the county seat, were," he says, "aware of the existence of these strange irons, and commonly called them meteoric; but there seems to have been no suspicion of their true character and value. Indeed, until March 17, 1890, a specimen weighing 101·5 pounds, had ornamented the side-walk in front of a real estate office in the above-named town for about three years. The farmers in the vicinity of the locality where the fall had occurred had put some of the specimens to various uses." Prof. W. Cragin, of Washburn College, was the first scientific man who visited the farm upon which the meteorites had fallen. This was on March 13. He secured from one of the farmers five meteorites, aggregating in weight over a thousand pounds, the heaviest specimen weighing 466 pounds. Mr. Snow himself shortly afterwards visited the place several times, and obtained five specimens, one of them being the meteorite which had been used as an ornament of a side-walk. The total number of masses included in the fall was at least twenty; and Mr. Snow says that the total weight of all the masses must have exceeded two thousand pounds. They fell within an oval area about one mile in length. "Some of the specimens were only partially buried in the ground; others were struck by the breaking plough at a depth of from three to four inches; others at the second ploughing, five or six inches deep; others yet, by the stirring plough at the third ploughing in a subsequent season." A specimen retained for the museum of the University of Kansas weighed 54·96 pounds. "It is," says Mr. Snow, "an irregular plum-shaped mass, much pitted, and covered with a burned and weathered crust. Its extreme length is about eleven inches, and its breadth is seven inches. This specimen, as well as the others mentioned above, so far as examined by the writer, belongs to that class of meteoric iron known as 'pallasite.' It is composed of nickeliferous iron, including many cavities throughout the entire interior. These cavities are filled with troilite and a yellowish, glassy mineral, which is probably olivine. Some of the latter is very dark and less transparent. The specific gravity, determined by Mr. E. C. Franklin, our assistant in chemistry, and obtained by weighing the whole mass, is 4·76. Two hundred and ninety-three grams have been removed from the larger end of the specimen, and a polished surface of about fifteen square inches has been obtained, which shows very well the structure. The Wiedmanstaeten figures, rather coarse in outline, were developed readily upon the polished iron surface by the application of nitric acid. The portion removed from the specimen is being used for analysis by Prof. E. H. S. Bailey and Mr. E. C. Franklin, and the results of the analysis will appear later."

M. V. FAYOD, of Nervi, near Genoa, has been appointed assistant in the bacteriological laboratory of the Faculty of Medicine in Paris.

THE post of Director of the Botanic Garden at Hamburg, vacant by the death of the late Prof. H. G. Reichenbach, will not at present be filled up: the Garden will remain under the care of the present Inspector, assisted by the botanists Sadebeck and Dingler.

Notarisia is no longer the only botanical journal in Italy devoted to the interests of algology. The first number has been issued of *La Nuova Notarisia*, a quarterly journal with a similar scope, published at Padua, under the editorship of Dr. G. B. De Toni, Director of the Botanic Garden at that University.

THE *Canadian Record of Science* for April records the opening of a botanical laboratory in connection with the McGill University, Montreal, under the control of Prof. D. P. Penhallow. The course of study to be pursued at the laboratory, which is furnished with microtomes, embedding baths, &c., embraces a thorough grounding in vegetable histology, and carries on those students who may desire it to a study of tissues and their constituent elements, and to the complete histology and life-history of plants.

THE Bulletin of the Torrey Botanical Club records that Miss Mary E. Banning has presented to the New York State Museum of Natural History a magnificent volume of illustrations in water-colour, accompanied by manuscript descriptions of about 175 species of the Fungi of Maryland, belonging mostly to the Hymenomycetes and Gasteromycetes.

THE trustees of Columbia College, New York, have adopted a report which, according to the *Nation*, completely reorganizes the College, and puts it definitively on the footing of a University, with faculties of philosophy, political science, mines, and law, each independent in its own sphere, but working under a University Council, made up of representatives of each faculty, and of some selections made by the President. The University will give the Master's and Doctor's degrees, and the Council will "advise the President as to all matters affecting these degrees, the correlation of courses, the extension of University work in new and in old fields, and generally as to such matters as the President may bring before it." The *Nation* attributes much importance to this change, which, it thinks, "must have the effect of stimulating the love of culture among the undergraduates, of making the University, more than ever, what all our colleges ought to be, but what only a few really are, a seat of learning."

GREAT efforts are being made in the United States to secure that American industrial products shall be well represented at the forthcoming Jamaica International Exhibition. A Committee has been appointed to make all necessary arrangements; and one of the advantages already obtained for exhibitors is that low freight rates will be charged for exhibits.

THE Smithsonian Institution has issued the tenth of the Toner Lectures, which have been established at Washington by Dr Joseph M. Toner, of that city, for the promotion of medical science. The new lecture is by Dr. Harrison Allen, and is entitled "A Clinical Study of the Skull." It is described by the author as "a contribution to the morphological study of diseased action." He expresses a hope that the results he has expounded may excite increasing interest in the proposition that "medicine for the most part is a science based on biology." "The study of biology," he says, "should not be the preparatory work of the tiro only, but should be the subject of increasing assiduity in every phase of medical work. The study of anatomical variation in the human frame is a phase of biology, and it is held in this connection to be a subject as important as any other which may claim the attention of the student of etiology of disease."

THE United States Hydrographic Office has called attention to the fact that the Bordeaux Chamber of Commerce has offered a series of prizes in order to induce masters and officers of vessels to test thoroughly the use of oil at sea. There are three sets of prizes, each set consisting of a first prize of 200 francs and a second prize of 100 francs. These prizes will be awarded for the best reports received by January 31, 1891, based upon actual experience.

ON Monday evening last, at the Surveyors' Institution, London, Mr. R. F. Grantham, M.Inst.C.E., read a paper entitled "The Encroachment of the Sea on some parts of the English Coast, and the best means of arresting it." After bringing forward evidence to show the rate of erosion on various parts of the coast, the author referred to several works for defending the coast-line from encroachment, best adapted for various situations, and described a system of groyning which had been successful for the past twelve years at Shoreham, Sussex, in protecting some land lying below the level of high-water of the tides, and in driving high-water mark further seawards. He suggested that in some instances where shingle travelled along the coast, inasmuch as groynes were necessary to protect sea-walls, the sea-walls might be omitted, and thus a substantial saving in the first cost of protection might be effected.

THE Pilot Chart of the North Atlantic Ocean shows the tracks of nine cyclones during the month of April; only five of these were of noteworthy severity: one, moving between Scotland and Iceland on the 1st and 2nd was the same great storm that gave birth to the tornado which wrecked Louisville on March 27. Another noteworthy cyclone originated north of Bermuda on the 1st, moved north-easterly at the high velocity of about 1080 miles a day, causing terrific gales along the transatlantic routes, and disappeared near Iceland on the 4th. A new feature during the month was the very unusual easterly movement of the ice, so that, in addition to the large number of bergs south of the Banks, ice was constantly reported almost as far east as the 35th meridian, in latitude 46° and 47° N.

Dr. Max Buchner, who has spent a year and 9 months in Australia, Japan, China, and Manilla, has returned to Munich. He has brought back a valuable scientific collection for the Ethnographical Museum, of which he is the director.

Engineer and *Engineering* for May 16 print excellent leading articles on the disastrous accident to the West Coast Scotch express at Carlisle, on March 4; their principal reason being that the Board of Trade Report has just been issued, and that it is in many respects a remarkable document. The accident, as our readers will remember, was due to the driver losing control of the train on entering Carlisle Station, where it ran into a Caledonian engine waiting at the other end of the station. The Report issued by the Board of Trade contains all the available evidence, and the Inspector's opinions as to the cause. The question to be settled was, Why or how did the driver lose control of the train? The Inspector held that the driver was in fault, and this in the face of much evidence that did not support his theory. This evidence he got rid of by the simple expedient of rejecting it as untrue. Our contemporaries clearly demonstrate the real cause of the brake failure, and point out that the Board of Trade Inspector, even after the inquiry, did not understand the construction and working of the North-Western automatic vacuum brake, and that, therefore, his opinion is not worth the paper it is written on. For instance, in his Report he is evidently under the impression that it is possible for the driver to alter the working of the train-brake from automatic to non-automatic working from the foot-plate—an impossibility. The accident was caused by the train-pipe between the engine and train becoming blocked by ice, and thus causing the train-brake to become gradually useless, owing to the connection with the engine being closed. The engine-driver had no means of knowing this state of affairs except by applying the brake, which he did on approaching Carlisle, and found it of no use. The Board of Trade Inspector has thrown the blame of the accident on the driver—a man who, according to the evidence, displayed exceptional presence of mind in what he did. Had the Board of Trade Inspector been a trained railway engineer, he would certainly have come out of this inquiry more satisfactorily. The inquiry, or rather the result of it, distinctly points to the anomaly of officers, however eminent, adjudicating on matters concerning which they have not been thoroughly instructed.

In the year 1886, when Mr. John Gardiner was scientific adviser to the Board of Agriculture of the Bahamas, he was asked by Governor H. A. Blake to prepare a list of the flora of the colony. At the same time a list of the plants of New Providence, prepared some years before by Mr. L. J. K. Brace, was placed at his disposal. With this as a base, Mr. Gardiner set to work, and in due time his task was accomplished. The list, with notes and additions by Prof. Charles S. Dolley, has now been printed in the Proceedings of the Academy of Natural Sciences of Philadelphia. It is called provisional, as Mr. Gardiner explains in an introductory note, mainly because it is not backed throughout by herbarium specimens.

Mr. George W. Perry, of Rutland, Vt., writes to *Science* that European furze grows in one spot in the island of Nantucket, where it has maintained itself for fifty years. It was introduced by an Irishman, "who was homesick because it did not grow about his cabin, as in the old country." Mr. Perry believes it has not spread to any great extent. "It may be interesting to some," he adds, "that the Scotch heath also is found in one spot in the island, where it has continued for a long time." Mr. George M. Dawson, of the Geological Survey of Canada, also writes to our American contemporary about gorse or furze in the New World. He says it has for many years been fully naturalized in the southern part of Vancouver Island, where, along road-sides and in waste places near Victoria, it is very common. The broom is also abundant in similar situations in the same locality, and "both plants appear to be as much at home as in their native soil."

The new number of the Journal of the Anthropological Institute of Great Britain and Ireland contains, among other papers, an interesting address by the President, Dr. John Beddoe, in the course of which he refers to the vexed question as to the original seat of the Aryan race. Speaking of the fact that the Lithuanian language is regarded by some philologists as "the most primitive in form of the whole Aryan family," he points out that we have little definite knowledge as to the physical type of the Lithuanians. "Here, then," he says, "is a fine opportunity, well within reach, for a partisan of the European-origin theory. Let him go to Kovno or Vilna, and bring us back, thoroughly established, the true Lithuanian type."

A detailed description of the useful minerals and mineral waters of the Caucasus, by Prof. V. Möller, has appeared at Tiflis. The author is at the head of the Mining Administration of the Caucasus, and has availed himself of all accessible information on the subject. The work is illustrated by a map. It appears as the third volume of the second series of "Materials for the Geology of the Caucasus."

The U.S. Department of Agriculture has issued Parts I., II., and III., of a valuable "Bibliography of American Economic Entomology." These parts relate to the more important writings of B. D. Walsh and C. V. Riley, and have been prepared by Samuel Henshaw.

Messrs. Crosby Lockwood and Son will publish immediately a new "Pocket Book" for electrical engineers, which has been written by Mr. H. R. Kempe, of the Postal Telegraphs Department. They have also nearly ready a new work on "Electric Light Fitting," a practical hand-book for working electrical engineers, by Mr. John W. Urquhart, whose book on "Electric Light" is well known.

The same publishers have in the press a new elementary treatise on "Light," for the use of architectural students, by Mr. E. W. Tarn, forming a new volume of "Weale's Rudimentary Series"; also a revised and enlarged edition of Prof. Merivale's "Notes and Formulæ for Mining Students"; and a new edition of Mr. G. W. Usill's "Practical Surveying."

We understand that Mr. Caleb Pamely, of Pontypridd, has in the press a comprehensive treatise for the use of mining engineers, dealing with the whole subject of colliery working and management. It will be published by Messrs. Crosby Lockwood and Son.

At a recent meeting at Shanghai of the China Branch of the Royal Asiatic Society, Dr. Macgowan, the veteran scholar, presented a paper on the political domination of women ("gynæcocracy" or "gynarchy") in Eastern Asia. In the opening of the paper reference was made to the condition of the aboriginal peoples whom the Chinese found on the Yellow River on their arrival from Akkad. The Chinese then possessed the rudiments of civilization, of which the aboriginals were destitute. That this irruption of the Chinese was anterior to the invention of cuneiform writing in Akkad was probable, because of their use of quipos or knotted cords in keeping records. These quipos, the author said, and not mere tradition, were the base of Chinese archaic annals, and from them the earliest form of Chinese written characters was evolved. Anterior to these quipos, judging from certain neighbouring tribes, notched sticks were employed. With regard to the tribes which the Chinese found existing on reaching their future home, Dr. Macgowan remarked that the philosopher of Universal Love, Motzu, proto-altruist and arch-heresiarch—whose sun was rising when the sun of Confucius was setting—enunciated views on the evolution of the state and family which are in accord with those of modern anthropologists. Men at first were in the lowest state of savagery: there was no Golden Age as depicted by sages and political philosophers until men felt the necessity of a remedy for the anarchy that prevailed. Practices of self-deformation were some of them remarkably curious, such as those of drinking through the nostrils, extracting front teeth and substituting dogs' teeth, head-flattening, &c.; the most striking was the attempt to raise a polydactylous race, by destroying all children who came into the world with the usual number of fingers and toes, and thus a tribe had a dozen fingers and as many toes. The writer then described a number of instances of rule by Amazons, and observed that it is chiefly among the aboriginal inhabitants that the chieftaincy of women obtains to this day. There is seldom an age in which one tribe or another does not afford examples; the more primitive the condition of these tribes the slighter is sexual differentiation as regards public governmental affairs, both civil and military. It was owing to rumours respecting tribes of this kind that fables and myths in Greece arose regarding Indo-Scythian Amazons. The paper, which is full of valuable ethnological matter, will be published in the Journal of the Society.

A PAPER upon the spontaneously inflammable liquid hydride of phosphorus, P_2H_4, is communicated by Drs. Gattermann and Haussknecht, of Heidelberg, to the new number of the *Berichte* (p. 1174). Owing to the disagreeable and highly dangerous properties of this substance, its chemical history has never been completed; very little, indeed, has been hitherto added to our knowledge concerning it since its discovery by Thénard in 1845. The Heidelberg chemists have devised a much better mode of preparing the liquid from phosphide of calcium, by means of which it is obtained in a state of almost perfect purity. A Woulfe's bottle with three necks and of about two litres capacity is three parts filled with water. The central tubulus serves to introduce a wide tube of 15 mm. diameter expanded into a funnel at the top and passing down to about three centimetres beneath the water. One of the side necks is fitted with a cork and a bent tube just dipping beneath the surface of the water, through which a current of hydrogen gas can be driven. The third tubulus carries the delivery tube which permits of the escape of first the hydrogen, and afterwards the products of the reaction between the calcium phosphide and the water, into a special form of condensing arrangement. The Woulfe's bottle is placed in a capacious water-bath, which is heated to 60° C. as soon as all the air is expelled by the current of hydrogen. The calcium phosphide is then introduced through the central wide tube in pieces about two grams in weight, until, in about 15–20 minutes' time upwards of 50 grams have been added. The escaping gases pass first through an empty wide test-tube in which most of the admixed water-vapour is condensed, then into an upright tube, narrowed in its lower half, and closed at the bottom, which forms a suitable receptacle for the liquid hydride. By means of an exit-tube the remaining gases are permitted to escape; owing to a little admixed and uncondensed vapour of the liquid, they burn spontaneously at the mouth of the tube. The condenser is surrounded with iced water instead of a freezing mixture, so that the condensation may be observed. In about five minutes after commencing the operation clear colourless highly refractive drops of the liquid form and run down into the narrower portion of the condenser, about 2 c.c. being obtained from 50 grams calcium phosphide. The experiment must not be performed in sunlight, otherwise the liquid rapidly decomposes, in the manner described by Thénard, into gaseous PH_3 and solid P_4H_2. By a slight addition to the above arrangement, all three hydrides of phosphorus may be simultaneously prepared. The escaping gases are allowed to pass through a large flask containing hydrochloric acid, which decomposes the vapour of the remaining liquid hydride, and large quantities of the yellow solid P_4H_2 separate out. The escaping gas, which may be collected over water, is non-spontaneously inflammable, and consists of practically pure PH_3. Liquid P_2H_4 boils constantly and without decomposition when not suddenly heated at 58° under a pressure of 753 mm. Its specific gravity at 12° is 1·007, nearly the same as that of water. Exposed to sunlight it becomes yellow in half an hour, due to the formation of solid P_4H_2, which remains at first dissolved; after 2–3 hours' exposure, the yellow solid begins to separate out, and in 1½ days 0·2 gram is totally decomposed, in accordance with the equation $5P_2H_4 = 6PH_3 + P_4H_2$. Consequently, sealed tubes containing this substance exposed in daylight are very dangerous articles. Owing to the accumulation of PH_3 gas, they are apt to explode with deafening concussion and production of a wide-spreading and very brilliant flame, especially if the drawn-out end becomes accidentally broken off.

THE additions to the Zoological Society's Gardens during the past week include a Wanderoo Monkey (*Macacus silenus* ♀) from the Malabar Coast of India, presented by Miss Eileen Martin; two Leopards (*Felis pardus*) from India, presented by Mr. — Egerton; two Yellow-winged Blue Creepers (*Cœreba cyanea*) from South America, presented by Mr. H. E. Blandford; two Mandarin Ducks (*Æx galericulata* ♂ ♀) from China, presented by Mr. C. J. Kingzett; two —— Touracous (*Corythaix* sp. inc.) from South Africa, presented by Mr. C. W. Burnett; two Undulated Grass Parrakeets (*Melopsittacus undulatus*) from Australia, presented by Mr. A. Golden; two Common Vipers (*Vipera berus*), British, presented respectively by Mr. W. H. B. Pain and Mrs. Mowett; an Australia Peewit (*Lobivanellus lobatus*) from Australia, presented by Capt. Shepherd; a Himalayan Bear (*Ursus tibetanus* ♂), two Bengal Foxes (*Canis bengalensis*), two —— Hares (*Lepus macrotis*) from India, a Ruffed Lemur (*Lemur varius*) from Madagascar, deposited; two Bar-tailed Pheasants (*Phasianus reevesi* ♀ ♀), an Amherst Pheasant (*Thaumalea amherstiæ* ♂) from China, a Variegated Sheldrake (*Tadorna variegata* ♀) from New Zealand, two Black-headed Conures (*Conurus nanday*) from Paraguay, purchased; a Crested Porcupine (*Hystrix cristata*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

OBJECTS FOR THE SPECTROSCOPE.

Sidereal Time at Greenwich at 10 p.m. on May 22 = 14h. 1m. 54s.

Name.	Mag.	Colour.	R.A. 1890.	Decl. 1890.
			h. m. s.	° ′
(1) G.C. 3770	—	White.	13 59 17	+52 54
(2) 69 Virginis	5·5	Yellowish-white.	13 21 35	−15 24
(3) B.A.C. 4699	5	Yellowish-red.	14 3 32	+44 23
(4) 20 Boötis	5	Yellow.	14 14 36	+16 49
(5) η Boötis	3	Yellowish-white.	13 49 30	+18 57
(6) U Cygni	Var.	Very red.	20 16 11	+47 33

Remarks.

(1) This very large nebula (101 M Boötis) has not yet been spectroscopically examined. According to the Parsonstown observations, it is at least 14′ across, and exhibits a spiral structure with arms and knots. It is everywhere faint, except in the middle. In the General Catalogue it is described as: "Pretty bright; irregularly round; at first gradually, then very suddenly much brighter in the middle to a small bright nucleus." The